

**REMOTE, AIRCRAFT, GLOBAL,
PAPERLESS MAINTENANCE SYSTEM**

09/25331

ABSTRACT OF THE DISCLOSURE

5 This invention is a system that monitors many performance parameters and many
aircraft operational parameters, and broadcasts this information along with aircraft
identification, audio, video, global positioning and altitude data, to a world wide two-way
rf network. This information is monitored and recorded at a remote, centralized location.
At this location, this information is combined with archived data, ATC data, weather data,
10 topological data, map data, and manufacturers' data. Analysis of this combined data allows
identification of problems and generation of advisories. Six types of advisories are
generated: maintenance, safety of flight, flight efficiency, flight separation, safe to fly and
safe to take off. In the event of a crash the remotely recorded data provides an instant
indication of the cause of the crash as well as where the crashed plane can be found. Use of
15 this invention allows replacement of the current, on-board flight data recorders thus saving
costs and weight. Having the recorded data at a remote site eliminates the need to search for
flight data recorders. Other advantages are back-up for ATC radar position data, better
control of aircraft separation, improved flight efficiency, and allowing use of simpler and
lower power radar.